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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/053,658

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Hiromi Nambu

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EXAMINER

FUBARA, BLESSING M

ART UNIT

PAPER NUMBER

1618

NOTIFICATION DATE

DELIVERY MODE

09/03/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/053,658	Applicant(s) NAMBU ET AL.	
	Examiner BLESSING M. FUBARA	Art Unit 1618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,7,8,10-22,30-36,41 and 42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7,8,10-22, 30-36,41 and 42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

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DETAILED ACTION

1. The examiner acknowledges receipt of extension of time, amendment and remarks filed 5/21/09. Claims 1, 35 and 36 are amended. Claims 1, 3-5, 7, 8, 10-22, 30-36, 41 and 42 are pending.

Response to Arguments

Previous rejections that are not reiterated herein are withdrawn in view of the amendment to claims 1, 35 and 36 having the content of water at 30-90% based on the weight of the composition.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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4. 20, 30, 31, 33, 34, 35

5. Claims 1, 3-5, 7, 8, 10-15, 17, 20-22, 30, 31, 32, 33-35, 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Konno et al. (JP 11-012123 A, cited by applicant in the specification and on form 1449) in view of Tietjen et al. (US 6479043).

6. Claim 1 is amended to say that the water content in the gel depilatory composition is 30-90% by weight of the total gel depilatory composition. Thus claims 1, 3-5, 7, 8, 10-15 and 17, 42 that were previously rejected under 35 USC 102 in office action of 1/21/09 is now rejected under 35 USC 103.

7. The instant composition is a gel sheet comprising a support and a gel depilatory composition comprising (a), (b), (c), and (d) and the hydrophilic high molecular compound is cross-linked by adding the cross-linking agent. Thus since Konno mixes or combines keratin reducing agent, which meets limitation (a), hydrophilic polymeric compound such as polyacrylic acid or polyacrylic acid salt having ionic group, which meets limitation (b), water and then adding calcium hydroxide or basic compound meeting limitation (c), the composition deriving from the mixture would be a gel in which the hydrophilic compound is cross-linked (see paragraphs [0014]-[0031] with emphasis in the embodiments of Examples 1 and 2 showing the formation of the composition. Below is description of how Konno's gel supported on support materials such as fabrics, non-woven and porous film meet the limitations of the claimed composition.

8. Konno describes applying sheet or film of fabric or synthetic fibers (see paragraphs [0014] - [0018] of the computer translated document) to remove body hair (see paragraphs [0002], [0039] of the computer translated document). Fabric materials such as textiles,

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cheesecloth, non-woven fabric or porous film, an infiltrative film, polyester, nylon, saran, polyethylene, polypropylene, ethylene-vinylacetate copolymer, etc in Konno meet the limitations of support materials (paragraph [0016]-[0018]) supporting the depilatory composition that comprises one or more of polyvinylpyrrolidone, polyacrylic acid, polyacrylic acid salt, polyacrylamide, gum arabic, polyethylene glycol, methylcellulose, tragacanth rubber hydroxyethylcellulose and hydroxypropylcellulose ([0019]), depilatory agent such as thioglycolic acid or its salt in amounts of 5-40% or 1-45% by weight ([0020], [0023]), water or ethyl alcohol or methyl alcohol ([0020]), the content of the water in Examples 1 and 2 at paragraphs [0033] and [0034] is 28% and 25% respectively, additives such as urea, perfumes, emulsifiers ([0021]), plasticizers such as polyethylene glycol, polypropylene glycol, glycerol, polyglycerin and sorbitol, inorganic or organic bulking agents ([0022]). Sodium hydroxide or calcium hydroxide or triethanolamine is also added to the composition. The solubility parameter for a compound as recited in claim 8 is a property of the compound, and in this case, gleaned from the specification, it is noted that the specification has described those compounds to be penetration enhancers/promoters, and for Konno, the depilatory composition contains ethanol or methanol and ethanol is a known penetration enhancer (see at least, paragraph [0144] of US 20020042635 A1 as an evidentiary document) so that the ethanol inherently has a solubility parameter that lies between the range recited in the claim 8 and satisfies the equation in the claim 8. The support materials of Konno have the properties recited in claims 41 and 42 because, using the instant specification as a dictionary reveals the support materials of the instant specification listed in paragraph [0088] to include polyester, nylon, Saran, polyethylene, polypropylene, etc, which are the support materials disclosed by Konno.

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9. Thioglycolic acid or its salt meets the keratin reducing compound of claims 1, 10, 11, the 1-45% or 5-40% thioglycolic acid or salt contains the amounts of the keratin in the ranges recited in claims 12 and 13. Polyacrylic acid or its salts meets the hydrophilic polymeric compound having ionic group of claims 1, 5, 7, 14, 15. Calcium hydroxide meets the limitation of the ionic bonding cross-linking agent of claims 1, 5, 17. The presence of water meets the limitation for water in claims 1. The celluloses, polyethylene glycol, gum arabic or tragacanth gum, meets the limitation for non-ionic hydrophilic polymer of claim 3, when used in combination with the polyacrylic acid or its salt; the bulking agents such as silica, alumina, zinc oxide, talc, clay, kaolin, calcium carbonate and metal powder oxide meets the limitation of water insoluble particles of claim 4. Konno does not specifically use the term gel in which the hydrophilic polymer is cross-linked, however, combining the components of the composition as in the instant would successfully produce a gel in which the hydrophilic polymer is cross-linked after addition of the cross-linking agent.

10. Konno applies the sheet/film containing depilatory composition to remove hair by grasping to remove the sheet or film from the area of application (see the whole translation with emphasis of paragraphs [0011], [0012], [0024], [0026], and [0027]). The grasping to remove meets the limitation of peeling of claims 20 and 33, 35. Urea is said accelerate the swelling of body hair so that removing the sheet after hair has swollen as required by claims 20 and 31 is met. In one embodiment water is applied to the sheet/film before removal (paragraph [0026], [0027]) and also, in one embodiment, the composition comprises 25% and 28% water so that claim 30, 34, 35. The viscosity recited in claim 35 is a property of the claimed broad

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composition comprising keratin reducing compound, ionic and non-ionic polymer, ionic cross-linking agent and water.

11. Konno in the evaluation test at paragraph [0037] appears to have kept the gel sheet in the arm pit for about 15 minutes so that the time required to leave on the sheet in claim 21 in the range of 2-20 minutes is met and further, the artisan would be able to leave the sheet, on the site where hair removal is desired, for an appropriate time in minutes sufficient for the interaction of the thioglycolate and the swelling agent to achieve swelling and break down of the disulfide bond of the hair so that the hair would be effectively removed from the target site when the sheet is removed. Regarding claim 22, the depilatory composition of Konno can be applied to any part of the body desiring hair removal including the face noting that Konno does not exclude the use of the sheet on the face. Therefore, considering the teaching of Konno, one having ordinary skill in the art at the time the invention was made would have reasonable expectation that keeping the sheet of Konno on the target site for a specified time of 15 minutes or less or more would successfully depilate hair on the target site.

12. While Konno does not teach washing the depilatory gel composition according to claim 32, it is known in the art according to Tietjen at column 4, lines 11-15 that depilatory compositions containing thioglycolate applied to the target area can be washed off or rinsed off (see also compositions on Table 10 after 5-15 minute wait time). The 5-15 minute wait time meets claim 21 and removing the composition by washing as required by claim 32 reads on the rinsing off the composition from the skin according Tietjen.

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13. The % water content disclosed in Konno is at 28% and 25% (see paragraphs [0033] and [0034]) differing from the recited water content in the claimed composition in the range of 30-90%.

14. But depilatory compositions containing depilatory agent such as the thioglycolate have contained as much as about 50 to about 85% water according to the composition described by Tietjen (see the whole document with emphasis on the abstract and column 3, lines 52-59 and Examples 1-3, 4-7). Therefore, taking the teachings of Konno for a depilatory composition comprising depilatory composition comprising water at 28% or 25% for removing body hair and the teaching of Tietjen that larger % amount of water can be used in depilatory composition for enhancing the wetting of hair for facilitated removal of hair, one having ordinary skill in the art at the time the invention was made would reasonably expect that water in amounts in excess of the 28% or 25% in the composition of Konno would effectively wet the hair for the anticipated removal of hair.

15. Claims 1, 3-5, 7, 10-19 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Konno et al. (JP 11-012123 A, cited by applicant in the specification and on form 1449) in view of Tietjen et al. (US 6479043).

16. Konno in view of Tietjen has been described above to render obvious the depilatory composition of claims 1, 3-5, 7, 8, 10-15, 17, 41 and 42. Regarding the amount of the cross-linking agent in the range recited in claims 18 and 19, it is noted the range indicates that the amount varies 50 fold from a minimum of 0.1% to and upper limit of 5% and one having ordinary skill in the art would use amounts of cross-linking agent that would be effective to provide desired cross-linking. For example, calcium hydroxide is used in amounts of 1.5

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weight% in Example 1 and Konno teaches that the amount of the basic substance varies according to the amount of the composition, so that one having ordinary skill in the art at the time the invention was made has the skills to use amounts of the basic substance such as calcium hydroxide that would produce the desired cross-linking of the hydrophilic polymer having ionic group. Absent factual showing, the amount of the cross-linking agent in the range recited is not inventive over the composition of Konno.

17. While Konno contemplates the use of polyacrylic acid salt, Konno does not teach sodium polyacrylate of claim 16. But sodium or calcium salts of polyacrylic acids are well known in the art. Therefore, one having ordinary skill in the art at the time the invention was made would expect that sodium or calcium salt of polyacrylic acid used as the salt of polyacrylic acid as called for by the prior art would lead to the anticipated depilatory gel sheet for hair removal.

18. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Konno et al. (JP 11-012123 A, cited by applicant in the specification and on form 1449) in view of Tietjen et al. (US 6479043) and further in view Bowling et al. (WO 92/07963).

19. Konno has been described above as applying a sheet of polyester, nylon, Saran, polyethylene or polypropylene containing depilatory composition comprising thioglycolic acid or thioglycolic acid salt, hydrophilic polymer, water and hydrophobic base to a target site for hair removal (see the description above and see also paragraphs [0014]-[0031] with emphasis in the embodiments of Examples 1 and 2 showing the formation of the composition). Konno in view of Tietjen has been described above to teach a composition in which the water content could be higher than 28%, such as in the range of up to 50-85% for an effective wetting of the hair.

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Konno in view of Tietjen differs from instant claim 36 by failing to specifically teach warming the gel sheet. It is the warming of the gel that leads to swelling of the gel such that the swelling of the gel is a consequence of the warming. However, hair removing composition containing thioglycolic acid are heated for application with the temperature at which the composition is heated ranging from 100 °F (37.77 °C) to 190 °F (87.77 °C) according to Bowling at page 4, lines 24-27; Bowling further notes that the depilatory substances works more effectively when heated (page 11, lines 11-17). Therefore, taking the teachings of the prior art, one having ordinary skill in the art would have reasonable expectation of success that warming the depilatory composition of Konno according to the teaching of Bowling would produce a more effective depilatory composition.

Response to Arguments

20. Applicant's arguments filed 5/21/09 as the arguments relate to the rejections modified in view of the amendments have been fully considered but they are not persuasive.

21. Applicant argues that Konno's composition is one in which water must be added in order for it to effectively remove hair and that Konno teaches away from a gel sheet that contains substantial amount of water; applicant then points to paragraphs [0026] and [0041] that teach application of water to the device in order for it to effectively remove hair.

22. The examiner disagrees that Konno teaches away from the invention. Claim 1 is a composition claim and for claim 1, application of the composition to target area for hair removal is an intended use. Konno does not teach away from the invention by adding water to the system because the claimed system/composition contains water. Instant claim 20 applies the composition of claim 1 to a portion of the body that needs hair removal. Konno applies the

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sheet/film containing depilatory composition to remove hair by grasping to remove the sheet or film from the area of application (see the whole translation with emphasis of paragraphs [0011], [0012], [0024], [0026], and [0027]). The grasping to remove meets the limitation of peeling of claims 20 and 33, 35. Therefore, Konno does not teach away from the claimed composition or the claimed method. Application of water to the device in Konno does not teach away from the composition or the method of using the composition because, in both the claim and the prior art, the goal of hair removal is achieved. With regards to the 30-90% water, it is noted that Konno's composition contains 28% water and it is known in the art that depilatory compositions contain water at higher than 28%, for example Tietjen teaches depilatory composition containing thioglycolate and water in amounts of about 50% to about 85%. Thus depilatory compositions comprising substantial amounts of water are known.

23. Applicant argues that Example 2 of Konno does not contain hydrophilic material that is cross-linked with a cross-linking agent. The examiner disagrees because calcium hydroxide is a cross-linking agent (see paragraph [0023] of the translation) and calcium has two charges. While Example 2 may not teach calcium salt, the prior art is not limited to the examples but the disclosure must be considered as a whole.

24. Applicant argues that the transitional phrase of "consisting" in claims 35 and 36 excludes the moistening steps in Konno and should be patentable over Konno. The examiner disagrees because while paragraph [0026] may be applying water to the adhesive or pasting layer 12, the water applied to the pasting layer becomes part of the composition and the depilatory composition that is applied uses the language of comprising and does not exclude the water in the layer and in fact the composition contains 30-90% water. Further, in another embodiment in

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paragraph [0019], the layer 12 is soaked in water before the layer is applied and the soaked layer is the composition that is applied to the target area and the comprising language of the composition is open. Therefore, the claims are unpatentable over the combination of references cited in the rejections.

25. No claim is allowed.

26. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

27.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BLESSING M. FUBARA whose telephone number is (571)272-0594. The examiner can normally be reached on 7 a.m. to 5:30 p.m. (Monday to Thursday).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Hartley can be reached on (571) 272-0616. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Blessing M. Fubara/
Examiner, Art Unit 1618